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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,191	10/14/2003	Long Bao Zhang	USDP2274A-ALL	8860
30265	7590	02/17/2006	EXAMINER	
RAYMOND Y. CHAN 108 N. YNEZ AVE., SUITE 128 MONTEREY PARK, CA 91754			HAN, JASON	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 02/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/684,191	Applicant(s) ZHANG, LONG BAO	
	Examiner Jason M. Han	Art Unit 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to Claims 1-2 have been considered but are moot in view of the new ground(s) of rejection.

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The following claims have been rejected in light of the specification, but rendered the broadest interpretation as stated by the Applicant and as construed by the Examiner [MPEP 2111].

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### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Nishihashi et al. (U.S. Patent 5038255).

Nishihashi discloses a light source arrangement including:

- An electric input adapter [Figures 1, 4: (8)] for electrically connecting with a power source [Column 3, Lines 19-22];
- A light head including:
  - = A supporting frame [Figure 1: (2)], which is made of good heat conduction material [Column 2, Lines 52-55], with at least a dissipating

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end [Figure 1: (22)] and a peripheral surface provided thereon [Figure 1: (4)]; and

- A luminary unit including:
  - = A circuit [Figures 3, 5: (41-42)] provided on said peripheral surface of said supporting frame and electrically connected with said electric input adapter [Figures 1, 4: (7)], and
  - = At least a luminary element [Figure 1: (5A)] having two terminal electrodes [Figure 3: (51)] electrically connecting to the circuit for emitting light when the terminal electrodes are electrified, whereby the luminary element [Figures 1, 4: (5A)] is mounted on the peripheral surface [Figures 1, 4: (4)] of the supporting frame [Figures 1, 4: (2)] such that the supporting frame is adapted for transmitting and dissipating heat from the luminary element at the dissipating end [Figures 1, 4: (22)].

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2 rejected under 35 U.S.C. 103(a) as being unpatentable over Ruskouski (U.S. Patent 5655830) in view of Begemann (U.S. Patent 6220722).

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4. With regards to Claim 1, Ruskouski discloses a light source arrangement including:

- An electric input adapter [Figure 6: (68-69)] for electrically connecting with a power source [Column 1, Line 66 – Column 2, Line 5];
- A light head [Figure 6: (15)] having a supporting frame [Figure 6: (105, 107)] with at least a dissipating end [Figure 6: (22)] and a peripheral surface provided thereon [Figure 6: side face where (107) is disposed]; and
- A luminary unit having a circuit [Figure 6: (40, 55, 59)] provided on said peripheral surface of said supporting frame and electrically connected with said electric input adapter [Column 6, Lines 55-59], and at least a luminary element [Figures 6-7: (100)] having two terminal electrodes [Figure 7: (112, 120)] electrically connecting to the circuit for emitting light when the terminal electrodes are electrified, whereby the luminary element is mounted on the peripheral surface of the supporting frame.

Ruskouski does not specifically teach the supporting frame being made of a good heat conduction material such that the supporting frame is adapted for transmitting and dissipating heat from the luminary element at the dissipating end.

Begemann teaches, "If LEDs with a high luminous flux (5lm or more) are used, then a so-called metal-core PCB is customarily used. Such PCBs have a relatively high heat conduction. By providing these PCBs on the (preferably metal) substrate by means of a heat-conducting adhesive, a very good heat dissipation from the LED arrays to the gear column is obtained" [Column 2, Lines 53-59].

It would have been obvious to one ordinarily skilled in the art at the time of invention to modify the light source arrangement of Ruskouski, specifically the supporting frame, to incorporate the commonly known MC-PCB (metal-core PCB) of Begemann in order to provide good heat dissipation away from the luminary element, as corroborated by Begemann above.

5. With regards to Claim 2, Ruskouski in view of Begemann discloses the claimed invention as cited above. In addition, Ruskouski teaches the luminary element being a single bonded diode [Figure 7: (110)], wherein one of the terminal electrodes is electrically connected to the supporting frame while another terminal electrode is electrically connected to the circuit.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Han whose telephone number is (571) 272-2207. The examiner can normally be reached on 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason M Han  
Examiner  
Art Unit 2875

JMH (2/15/2006)

  
ALAN CARIASO  
PRIMARY EXAMINER